ABSTRACT

The present invention provides a process for producing an optically active allene represented by formula (1):

$$R^4$$
— C — C — C — R^3

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wherein R^2 and R^3 are different and each represents a hydrogen atom, an optionally substituted C_{1-20} alkyl group or an optionally substituted C_{6-20} aryl group, and R^4 represents an acyl group, which comprises reacting an allene derivative represented by formula (2):

$$R^1$$
—O—C—C—C— R^3

wherein R^1 represents a hydrogen atom or an optionally substituted acyl group and R^2 and R^3 have the same meaning as defined above, with an acylating agent having an acyl group

represented by R^4 when both R^1s are each a hydrogen atom or with water when both R^1s

are each an acyl group represented by R⁴, in the presence of an enzyme catalyst.

According to this production process, an optically active allene can be produced efficiently and enantioselectively from an allene derivative having a symmetrical structure.